

2-Deoxyglucose Fluorometric Assay Kit

Cat. No. Kit-0004 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	2-Deoxyglucose Assay Kit (Fluorometric) is a quantitative fluorometric determination of 2-deoxyglucose.
Description	Glucose uptake is an important biological process for studying cell signaling and glucose metabolism. Among many different methods available for measuring glucose uptake, 2-deoxyglucose (2-DG) has been widely used because of its structural similarity to glucose. As with glucose, 2-DG can be taken up by glucose transporters, and metabolized to 2-DG-6-phosphate (2-DG6P). 2-DG6P, however, cannot be further metabolized, and thus accumulates in the cells. The accumulated 2-DG6P is, therefore, directly proportional to 2-DG (or glucose) uptake by cells. In 2-Deoxyglucose Assay Kit (Fluorometric), the accumulated 2-DG6P is enzymatically oxidized and coupled to PicoProbe, which generates fluorescence in the presence of NADPH. This easy to use non-radioactive kit can detect glucose uptake as low as 50 pmol/well and can be used for a variety of cell types.
Applications	Measurement of glucose uptake in response to insulin, growth factors, cytokines, mitogens and nutrients, etc. Analysis of glucose metabolism and cell signaling in various cell types. Screening anti-diabetic drugs.
Target Species	Mammals
Usage	For research use only (RUO)
Storage	Store kit at -20°C, protected from light. Warm all Buffers to room temperature before

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use. Briefly centrifuge all small vials prior to opening.

Kit Components

Extraction Buffer. Cap code: NM. 17 ml Neutralization Buffer. Cap code: clear. 1 ml 2-Deoxyglucose (2-DG, 10 mM). Cap code: purple. 1 ml 2-DG Uptake Assay Buffer. Cap code: MW. 10 ml Enzyme Mix (Lyophilized). Cap code: green. 1 Vial PicoProbe™ (in DMSO). Cap code: blue. 0.2 ml 2-DG6P Standard (Lyophilized). Cap code: yellow. 1 Vial

Detection method

Fluorometric

Compatible Sample Types

Cell Lysate

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